

Weekly Newsletter April 18-21, 2023

## PQHS NEWS

### ANNOUNCEMENTS

**Friday, April 21, 2023 at 12 p.m.**

Morningside Graduate School of Biomedical Sciences Masters in Clinical Investigation Program Announces the MSCI Thesis Defense of MARIAM CHEKMEYAN

#### **Artificial Intelligence for the Diagnosis of Pediatric Appendicitis: A Systematic Review**

Via [Zoom](#) Meeting

**BACKGROUND:** While acute appendicitis is the most frequent surgical emergency in children, its diagnosis remains complex. Artificial intelligence (AI) and machine learning (ML) tools have been employed to improve the accuracy of various diagnoses, including appendicitis. The purpose of this study was to systematically review the current body of evidence regarding the efficacy of AI and ML approaches for the diagnosis of acute pediatric appendicitis.

**METHODS:** This systematic review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to identify articles from Pubmed, Scopus, and IEEE Xplore. Eligible articles included full text, English-language articles assessing the use of AI technologies for the diagnosis of acute pediatric appendicitis. Study quality of reporting was appraised using The Transparent Reporting of a multivariable prediction model of Individual Prognosis Or Diagnosis (TRIPOD) statement.

**RESULTS:** Fourteen studies were included in the final analysis and ten were published after 2019. Two studies originated in the United States while half originated in Europe. Artificial Neural Network and Random Forest AI methods were used the most regarding the modeling approach. Commonly used predictors were pain and laboratory blood work. The average AUC that was reported among the fourteen studies was above 80%.

**CONCLUSIONS:** AI and ML technologies have the potential to improve the accuracy of acute appendicitis diagnosis in pediatric patients. Further investigation is needed to identify barriers to adoption of these technologies and to assess their efficacy in real world usage once integrated into clinical workflows.

#### **The Regenstrief Center for Health Services Research Presents - Hiring, Engaging, and Retaining High Performing Research Staff Professionals: A 2-Part Virtual Conference for Faculty and Leaders of Research Teams**

Please visit the event website for the [full agenda with speaker and chair bios](#).

##### **Part 1: Friday, April 21, 2023, 11:00 AM – 4:15 PM (EDT)**

- Developing Highly Engaged Teams in Today's Changing Workplaces, **Brian J. Brim, MA, EdD**, Principal at Gallup
- Creating & Managing the Most Excellent and Efficient Research Teams, **Marie Anne Bakitas, DNSc, NP-C, FPCN, FAAN**, University of Alabama at Birmingham
- Empowering Research Staff Using a Coaching Conversation Framework, **J. Nicholas Dionne-Odom, PhD, RN, ACHPN, FPCN, FAAN**, University of Alabama at Birmingham

##### **Part 2: Monday, April 24, 2023, 11:00 AM – 2:45 PM (EDT)**

- Changing the Clinical Research Professional Landscape, **Denise C. Snyder, MS, RD, LDN**, Duke University
- Learning from Highly Effective Career Research Professionals
  - **Aquila Brown-Galvan, BS, MPH**, University of Alabama at Birmingham
  - **Curt Austin, BFA, BS, MDiv**, VA HSR&D Center for Health Information & Communication
  - **Diane Bresch, RN, BSN, CCRC**, Duke Office of Clinical Research
  - **Brie Sullivan, MS, PMP**, Fred Hutchinson Cancer Center

[Click to register](#). Following completion of registration, you will receive an automated confirmation message followed by separate Outlook invitation with Zoom information.

[Visit event website for more details](#)

**Event or Registration Questions:** [llosee@regenstrief.org](mailto:llosee@regenstrief.org)



Monday, May 8, 2023

**UMCCTS Workshop, “Data Visualization for Effective Science Communication with Diverse Audiences”**. Participants will learn about various approaches to visualizing scientific findings and data for effective communication with diverse audiences. Focus will be on both key principles of effective data visualization as well as concrete skill-building amongst participants. [Narges Mahyar, PhD](#), and [Ali Sarvghad Batn Moghaddam, PhD](#) will be speakers at the workshop. Registration is required. Click [here](#) to register.



Center for Clinical and Translational Science



UMass Chan MEDICAL SCHOOL

### MASS CHAN REMINDER

#### 2023 UMass Chan Medical School Benefits Open Enrollment

April 5 - May 3, 2023 for changes effective July 1, 2023

This is your once-a-year opportunity to review your benefit choices and enroll/make changes to the following benefits:

Enrollment includes:

- Health Insurance
- Dental Insurance
- Vision Insurance
- Short-Term Disability
- Health Care Spending Account (HCSA)\*
- Dependent Care Assistance Program (DCAP)\*
- Child Care Assistance\*



*\*Note: These benefits require participants to re-enroll each open enrollment period.*



UMass Chan Medical School encourages employees to “Take a Break” – Use Your Excess Vacation Leave by June 17<sup>th</sup>. As we get closer to fiscal year end, we want to remind you of the [UMass Chan Vacation Policy](#) and maximum accruals so you can plan accordingly.

As of the last full pay period of the fiscal year, the maximum number of vacation hours employees may carry over into the next fiscal year is 240. During the fiscal year, employees are allowed to accrue hours over 240; hours over this accrual limit are automatically re-set in the payroll system to the accrual maximum. **This year, the relevant pay period ends June 17, 2023. Accordingly, we encourage**

**you to use any vacation balances over 240 that exceed the 240-hour maximum before that date.**



UMass Chan Medical School’s [Office of Communications](#) is initiating regularly scheduled opportunities where faculty, staff, and students can have a professional headshot taken. Photos are taken every other Wednesday from 9 AM to 3 PM on the fifth floor of the Sherman Center by the elevators. Each session caps at 50 people. Anyone at UMass Chan can sign up using this document found on the SharePoint site. **See updated link for new options:** [Photo Sign-Ups \(office365.com\)](#)

PQHS Weekly will be sent to all members of PQHS on Monday mornings. The intent is to provide a snapshot of what is going on that week in PQHS and to share our faculty and staff activities with the department. We depend on you to provide the items we need to share. Please send suggestions of events, faculty invited seminars & talks, honors, student thesis presentations, and news – new babies born! – to Kellie ([kellie.armstrong@umassmed.edu](mailto:kellie.armstrong@umassmed.edu)) & Sarah ([sarah.yeboah@umassmed.edu](mailto:sarah.yeboah@umassmed.edu)) by Friday each week.